

**INDIAN INSTITUTE OF SCIENCE EDUCATION AND**  
**RESEARCH-THIRUVANANTHAPURAM**  
**[IISER-TVM]**

PH: 0471-2597454  
FAX: 0471-2597427

1<sup>ST</sup> FLOOR, DEPT: OF COMPUTER SCIENCE & ENGG,  
CET CAMPUS, ENGINEERING COLLEGE. P.O  
THIRUVANANTHAPURAM 695016,  
KERALA, INDIA.

IISER/PUR/PT/3/11

28<sup>th</sup> September 2011

**INVITATION TO TENDER**

Dear Sirs,

**SUB: TRINOCULAR STEREO ZOOM MICROSCOPE**

We invite Sealed Tenders for the above Equipment as per 'Schedule' attached.

Please quote your lowest rate and shortest delivery period. "Instructions to Tenderers" [Imports & Indigenous] attached are to be followed strictly.

**YOUR OFFER IN SEALED COVER SUPERSCRIBING TENDER NUMBER AND DUE DATE**  
**SHALL REACH US ON OR BEFORE 17<sup>th</sup> OCTOBER 2011 [3 PM] LATE AND DELAYED**  
**OFFERS WILL NOT BE CONSIDERED UNDER ANY CIRCUMSTANCES.**

Thanking You,

Yours Faithfully

  
Consultant  
(Purchase & Stores)

**IISER-TVM**  
**PUBLIC TENDER NO. IISER/PUR/PT/3/11**  
**SCHEDULE**

**I. TENDER No. IISER/PUR/1635/11**

**TRINOCULAR STEREO ZOOM MICROSCOPE**

**TECHNICAL SPECIFICATIONS:**

Trinocular Stereo Zoom Microscope should have the following features for protein crystallography applications like crystal observation and manipulation of crystals for flash freezing:

**1. WORKING DISTANCE:**

It should have a good "object to lens" Working Distance (W.D.) of at least  $\geq 60$  mm.

**2. OBSERVATION TUBE:**

It should have a trinocular observation tube having inclination angle of 20 degrees with possibility of 100% light to photography and simultaneously 50 % to eyepiece and 50 % to photography / direct video viewing on screen (teaching purpose) when manipulating sample under eyepiece.

**3. ZOOM RATIO AND FOCUS:**

Motorized Zoom ratio of 20:1 or higher – Continuous Entire Microscope optics should be Apochromatically corrected with built in aperture diaphragm for increased depth range and should be provided with all necessary dust protection cover. It should have motorized focusing. A human interface to control the motorized zoom and motorized focusing (even when computer is shut down) should be provided.

**4. NOSEPIECE:**

Two or three revolving nosepiece (objective revolver) for easy switchover of objectives should be provided. Three or more nose pieces are preferred and if available should be left closed for later upgradation/additions.

**5. EYEPIECE:**

10x/23 FN Eyepiece pair with diopter adjustment +/- 5 mm diameter.

**6. INTERPUPILLARY DISTANCE:**

Interpupillary distance adjustable at least from 55 mm to 75 mm

**7. PLAN APOCHROMATIC OBJECTIVES :**

Two objectives should be provided

**1st objective)** Total Magnification from ~ 7.5 x to ~150x with 1.0x Plan Apochromatic objective, minimum Working Distance of 60 mm or higher.

**2nd objective)** Total Magnification from ~ 4.5 x to ~ 90 x with 0.63x Plan Apochromatic Objective, minimum Working Distance of 80 mm or higher.

**8. ANALYZER:**

Each objective should be provided with a rotatable analyzer (2 numbers) and with attachments that allow us to easily attach and remove the analyzer to the objectives.

**9. RETICLE/GRATICULE:**

A Reticle or Graticule of 10 mm/100 on X or Y axis should be provided.

**10. ILLUMINATION AND CONTROL**

Two Cold light source with controls for controlling the light intensity and focusing of Cold light source. Halogen light equivalent to 15V 150W or more with intensity adjustments.

- One for incident light (15v 150W or more)(Goose-neck light guide, 2 branches, Goose-neck light guide each at least 600 mm) with focusing lens and daylight filter.
- One for Transmitted light (15V 150 W or more) with daylight filter with uniform illumination on stage plate.

Each light source should be provided with 5 spare bulbs (total 10 numbers).

The Cold Light Source should be away from sample and connected through fiber optics to the base for transmitted light and Goose neck light guide (2 branches) for incident light (top illumination) for simultaneous transmitted and incident light illumination. The light sources should be convection cooled light sources and the light transmitted or incident on sample should not heat up the sample on the stage.

**11. POLARIZER**

A polarizer for the transmitted light (at the base/stage) should be provided.

**12. STAGE:**

A flat rectangular Manual XY stage, with stage size at least 260 mm x 150 mm to accommodate at the centre a 24 well Linbro/VDX crystallisation plates (L16 cm x W11 cm x H2.5 cm) and 96 well sitting drop and microbatch crystallization plates. Optional quote: Optional holder accessories if available to hold VDX/Linbro/microbatch crystallisation plates should be provided as separate under optional price quote.

**13. ANTISTATIC DESIGN:**

Microscope body should be antistatic design with very good specific surface resistivity

**14. HIGH SENSITIVE FIREWIRE CAMERA**

Hi-Sensitive Digital 5 mega pixels CCD camera, with proper Video adapter for documentation and basic interactive measurements. Should be able to see live images in real time (capturing of at least 20fps @ at least 640x480 or larger pixels)

**15. SOFTWARE:**

Software for Full Live visualization, documentation and interactive measurement by a free-hand selection of areas of interest. All imaging and system parameters should be automatically stored with the image and easily retrievable for reproducible imaging. Standard geometrical measurements like length, areas, angles etc. should be possible, with scale bar option to be seen along with the image.

**16. COMPUTER ATTACHMENT:**

PC with 22 inch or better monitor (should be wall mountable and compatible for table top as well) System for Image acquisition and above applications should be provided with relevant Operating system and the above softwares installed. A minimum 5 TerraBytes storage space should be provided

**17. SITTING:**

A comfortable chair for longer observation time, with adjustable height of required height to be placed adjacent to the microscope which will be housed on a 900 m.m. platform from the floor level, is to be supplied

**18. WARRANTY:**

3 years manufacturer warranty must be provided on all components of microscope including camera, PC and all other parts from the date of Installation.

**19. TECHNICAL COMPLIANCE STATEMENT:**

Point wise technical compliance statement to be attached mentioning the page no. of Catalogue and Quotation

**20. SERVICE AND SUPPORT**

Bidder should clearly specify the after sales service and application support capabilities.

**21. RELOCATION:**

The vendor has to stand guarantee for relocation of the microscope once the permanent campus of IISER-TVM gets ready at VITHURA, (40 Kms from Trivandrum) in 2-3 years. They must be in a position to dismantle the setup in the present campus and re-install them at the NEW CAMPUS.

**NOTE:**

- 1. LEAFLET/CATALOGUE OF THE ITEMS QUOTED SHALL ACCOMPANY THE QUOTATION WITHOUT FAIL.**
- 2. ALONG WITH THE TECHNICAL DETAILS PROVIDE A TABULAR COLUMN INDICATING WHETHER YOUR OFFER MEET THE SPECIFICATIONS, BY INDICATING 'YES' OR 'NO'. IF 'YES' SUPPORT THE CLAIM WITH PROOF.**
- 3. NAMES OF INSTITUTES WITH CONTACT PERSON AND TELEPHONE/ EMAIL WHERE SIMILAR EQUIPMENT SUPPLIED BY YOU IN INDIA [PREFERABLY SOUTH] SHALL BE PROVIDED ALONGWITH THE BID.**
- 4. THIS EQUIPMENT SHALL BE INITIALLY INSTALLED AT IISER TRANSIT CAMPUS [CET] AND LATER, WHEN PERMANENT CAMPUS OF IISER IS READY AT VITHURA [40 KM FROM TRIVANDRUM], THE SAME IS TO BE RELOCATED THERE. PRICES QUOTED FOR THE EQUIPMENT SHALL BE EITHER INCLUSIVE OF RELOCATING THE EQUIPMENT OR A SEPARATE QUOTE SHALL BE SHOWN FOR THE SAME [DISMANTLING, LOADING, TRANSPORTING, UNLOADING, INSTALLATION AND DEMONSTRATION AT THE NEW LOCATION].**

  
CONSULTANT  
[PURCHASE & STORES]

**IISER-TVM**  
**INSTRUCTION TO TENDERERS [IMPORTS]:**

1. **PRICE:** The price quoted shall be firm. The terms of FOB/EXW/FCA/CIF/CIP etc shall be clearly mentioned.
2. **AGENT & AGENCY COMMISSION:** In case Tenderer is represented by any agent in India, their name and address shall be furnished. The amount of commission included in the price shall be clearly shown in the offer; which will be paid directly to the Indian Agents by purchaser in equivalent Indian Rupees. In case Indian agents existing and their agency commission is not shown in the Tender, reasons for the same shall be clearly mentioned in Tender. Details of Indian agent's statutory registration shall be stated. If Agency Commission is paid by Principals in foreign currency, the reasons for the same and exemption from Enforcement Directorate in India shall also be provided.
3. **LEAFLET/CATALOGUE:** Tenderer should furnish all necessary leaflet/catalogue etc., of the stores offered by him to enable the Purchaser to evaluate his offer correctly.
4. **MODE OF DESPATCH:** Tenderer shall indicate the mode of dispatch (i.e., Sea/Air-freight/Parcel Post, etc.) depending upon the normal mode of dispatch adopted by him for the type of stores offered for consideration of the Purchaser.
5. **COUNTRY OF ORIGIN:** Tenderer shall indicate in his offer the country of origin of goods offered and the name and address of the manufacture.
6. **INSURANCE:** If insurance of the goods is felt necessary, the same shall be advised by the Tenderer in the offer.
7. **DELIVERY/SHIPMENT:** The time for and date of delivery quoted shall be reasonable/realistic and shall strictly be adhered to in case of placing order on the Tenderer.
8. **MODE AND TERMS OF PAYMENT:** Payment in full (excluding the amount of Agency Commission included in the price payable directly by the Purchaser to the Indian Agents in Indian Rupees) will be made immediately on presentation of the prescribed documents against SIGHT DRAFT or LETTER OF CREDIT.
9. **WARRANTY:** Period of warranty and conditions shall be clearly mentioned in the Tender.
10. **GENERAL:** The Tenderer shall also be complied with the following:
  - a. Mention your Banker's name and address.
  - b. Show approximate net and gross weight and dimensions of packages/cases.
  - c. Furnish list of recommended spares for satisfactory operation for a minimum period of one year if the quote is for Plant & Machinery, Equipments etc.
  - d. Details of any technical service, if required for erection assembly, commissioning and demonstration.
  - e. Conform that the prices quoted are inclusive of all taxes, levies, duties arising in the tenderer's country.
  - f. The offer is valid for a minimum period of 90 days from the due date of opening of the tender.
  - g. Samples, if called for, will be sent free of all charges.
  - h. Late tenders and Delayed will not be considered.
  - i. Offers made by Indian Agents on behalf of their Principals, should be supported by the Proforma Invoice of their Principals.
  - j. The authority of person signing the tender, if called for, shall be produced.
  - k. The purchaser reserves the right to accept or reject the lowest or any other offer in whole or in part without assigning any reason.

  
CONSULTANT  
(PURCHASE & STORES)

**IISER – TVM**  
**INSTRUCTIONS TO TENDERERS [INDIGENOUS].**

1. Tenders should be sent in sealed envelopes superscribing the relevant tender no. and the due date of opening. Only one tender should be sent in each envelope.
2. Late tender and Delayed Tenders will not be considered under any circumstances.
3. Sales Tax and /or other duties/levies where legally levies and intended to be claimed should be distinctly shown separately in the tender.
4. (a). Your quotation should be valid for a minimum period of 60 days from the date of opening of the Tender. Quotation with firm prices will be preferred.  
(b). Prices are required to be quoted according to the units indicated in the Invitation to Tender. When quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.
5. (a) Preference will be given to those tenders offering supplies from ready stocks and on the basis of delivery at IISER site.  
(b) Preference will also be given to those who agree our payment terms of within 30 days of receipt and acceptance of the item at our site.
6. (a) All available technical literature, catalogues and other data in support of the specifications and details of the items should be furnished along with the offer.  
(b) Samples, if called for, should be submitted free of all charges by the tenderer and the IISER shall not be responsible for any loss or damage thereof due to any reason whatsoever. In the event of non-acceptance of tender, the tenderer will have to take back the samples at his own expense.  
(c) Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensional details are available the same should also be indicated in your offer.  
(d) **Specifications:** Stores offered should strictly conform to our specifications. Deviations, if any should be clearly indicated by the tenderer in their quotation. The tenderer should also indicate the Make/Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary along with the quotations. Test Certificates wherever necessary should be forwarded along with supplies. Whenever specifically mentioned by us the tenderer could suggest changes to specifications with appropriate reasons for the same.
7. IISER shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portion of the quantity offered and the tenderers shall supply the same at the rates quoted.
8. Corrections, if any, in the Quotation must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amounts quoted in words and figures, amount quoted in words shall prevail.
9. The tenderer should mention the name of his bankers, Sales Tax Registration, PAN number etc in the tender.
10. The authority of the person signing the tender, if called for, should be produced.
11. The purchaser reserve the right to accept or reject the lowest or any other offer in whole or in part without assigning any reason.
12. IISER being a Govt of India Educational and Research Institute, is exempted from payment of Excise Duty and Customs Duty under Notification No. 51/96- Customs dated 23<sup>rd</sup> July 2009. Also, we can issue Form 16 as per VAT Rules.
13. There is no EMD or Tender Cost.

  
**CONSULTANT**  
**(PURCHASE & STORES)**